Castlemaine Naturalist

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Monthly newsletter of the Castlemaine Field Naturalists Club Inc.

Wallflower orchid *Diuris orientis*
Conglomerate Gully Riddells Creek Photo Noel Young

Completing the Loop.

Part 3 (final) of Rita Mills' recent trip

We spent the next four nights at Lake Cargelligo. The lake was full, but again we were seeing the same waterbirds, though there were Pelicans, and a couple of Crested Grebes, but the main birds were Coots.

A trip out to Tullebeageal (with a name like that we just had to visit) proved to be a delight, with the sighting of a couple of Major Mitchell Cockatoos in the township. The next day we drove past the weir, and back up to the Lachlan River at Euabalong, which we were told is pronounced "you b'long', and had lunch on the bank of the river to the sound of dozens of Galahs, Sulphur-crested Cockatoos and Little Corellas, along with White-plumed Honeyeaters and Mudlarks. Afterwards we drove to the billabong where we had seen a White-bellied Sea-eagle on the way to Lake Cargelligo from Mount Hope. It wasn't there, but a Black-fronted Dotterel was busy at the water's edge.

We left the next day for Hay along the newly sealed road following the river flats to Hillston. It is an excellent road, with delightful views of a mountain range. I went for a walk along the lagoon at Hillston and there was water in it at last, and lots of birds, even a lone Sandpiper though which one I wasn't sure, as it was a bit far off for definite identification.

We spent three nights at Hay, driving out the first day to Carathool, and having lunch on the Murrumbidgee at a picnic spot near the bridges. We drove on from there south to find the Oolambean National Park, and, as the map we had didn't quite give the proper idea of where the park was, we never did get there (another case of 'get your information first'), but it was an enjoyable drive through paddocks. I spotted some unfamiliar birds rising and dropping back into the paddock alongside the track. What a thrill to discover I was watching Ground Cuckoo-shrikes for the first time.

The next day we drove out to Maud, and then to Oxley. There were quite a few birds at the weir at Maud, mostly heard, but Doug spotted a couple of juvenile

Nankeen Night-herons in the trees on the opposite side of the river. The drive up to Oxley was mostly very flat, typical of the Hay Plain, but there was lots of Noon-flower along the sides of the road for the first few kilometres, and the natural vegetation wasn't yet being taken over by feral Canola and Patterson's Curse. Having left the Murrumbidgee at Maud, we crossed the Lachlan at Oxley.

Next day, on the way home, I added another bird to my 'first time' list, and in a most unexpected place. Not far from 16 Mile Gums there was water lying at the side of the road, with lots of Black-tailed Native hens, a family of Kestrels and a number of duck species and, just as we were about to drive off I spotted another small bird under one of the shrubs, and discovered that it was a Spotted Crake.

The Black Swamp behind Geoff Hocking's Headless Horseman sculpture had lots of water in it, and lots of ducks including two Blue-bills, Swans, and Grebes, and several raptors, including Whistling Kite, Swamp Harrier and Black-shouldered Kite.

At Mathoura we stopped at the bird hide, and I was almost deafened (well, yes, but you know what I mean) by frog calls, but there were very few birds at all, except several Great Egrets, two of which were circling one another. One had apparently encroached on the other's territory - or was it just the problem of Spring in the air?

The most notable things for the trip for me were the red hills near Broken Hill with their mist of Rock Sida, all the wattles in flower, many of which I could not name, some very special birds, and the piece of ginger fudge, not too sweet, and very yummy, made by Jacqui of Country Simplicity.

Geoff Carr at the October meeting

Noel Young

Geoff Carr is a professional botanist who runs a consulting business from Melbourne. At the October meeting he described his beginnings as a 'plant nut' from the age of five or six, as a horticulturalist and a founding member of the Geelong Field Naturalists Club before he went on to graduate in Botany. He emphasised the importance of studying live plants, which reveals many differences missed by taxonomists in the past describing species from poorly collected and dried out specimens. This approach has led to many revisions in recent times, including his own work on orchids and Dianella.

A new approach places the Dianella genus in the Xanthorrhoeacaea family (grass trees) alongside Lomandra and others, and the Liliacaea (lily family) is essentially confined to northern hemisphere plants. A very old group of ancestral Dianella is represented by fossils in Antarctica, and the genus clearly has Gondwanan affinities, shared by Antarctica, Australia and South America. Geoff believes that the Dianella began 50 - 70 million years ago as a rainforest plant, which diversified and adapted to the increasing aridity of Australia during the Tertiary. There is a fascinating story in the evolution and adaptation of these plants to changing environments. On this matter I thought there were interesting parallels with Neil Marriott's talk to the club on the Grevillea genus last year.

An illustration showed how a typical Dianella reproduces and grows with 'aerial stems' typical of rainforest species – the growth of new stems from the rhizome is

repetitive and the plant in some cases could 'progress' a considerable distance over time. The flower structure has 3+3 sepals, 6 stamens, and a 3 part ovary in the middle. The struma, a swollen segment at the base of the anthers, consists of tightly packed microscopic hairs which emit the fragrance.

Flower of *Dianella admixta* showing the prominent dark brown anthers

The flowers normally hang upside down to enable gravity assisted pollination from the anthers, which will only release pollen when stimulated by the vibrations of a variety of native bees. This is known as "buzz pollination" and is not unique, being used by many plants, e.g., Tetratheca, Thysanotus, tomatoes, potatoes, capsicum etc. The sudden effusion of pollen can be induced by applying a vibrating tuning fork of the right frequency to the anthers.

Dispersal The Dianella fruits are typically blue to purple berries. They 'taste awful' but are known to be consumed by certain birds – Currawongs, Emus, Silvereyes, certain honeyeaters, Blackbirds, possibly Bower birds etc. Of the 6 species of the "Tasmanica group" (which extends from Tasmania to northern NSW) three species have green fruit, and Geoff suspects that these are dispersed by reptiles rather than birds, as they prefer rocky and precipitous locations, and he has found seeds in the faeces of local skinks.

Distribution Most Australian species are concentrated in the area of northern NSW to north Queensland, and there are relatively few in the south (14 species in a radius of 100km around Melbourne) Though quintessentially an Australian plant, with representatives in all States and territories, it has spread and diversified by bird dispersal, through SE Asia to India, Nepal, China, Japan and on many of the Pacific islands. (there are three endemic species on Hawaii)

The genus Dianella, originally thought of as small, is now blowing out to hundreds of species, and will end up being one of the larger genuses of Gondwanan plants. Recent work has revealed many new species, and there is no doubt many more to be found. Geoff remarked that he could spend the next 600 years on them. He found two new species just last year north of Buchan in East Gippsland.

It seems that we always have too few specialists working on the understanding of what we have, and the more investigations they carry out, the less complete our knowledge appears.

On the Saturday afternoon excursion Geoff led us to an area near the railway cutting at Harcourt, where he showed us four species of Dianella. Though it was clearly too early for the flowering of all but the locally common admixta (Black-anther Flax-lily), some plants were producing flower stalks. Geoff showed us the differences in the characteristics of the leaves. The location reflected the preference of the non admixta species for granitic soils.

The Harcourt Dianella excursion

Above:
Budding flower stalk of *D. amoena*
Above right: A fine example of *D. tarda* with dried flower stalk
Right: Geoff Carr explaining the structure of Dianella
Below: Members examine spreading tussocks of *D. admixta*

Conglomerate Gully, Riddells Creek

We have decided to make this the final "piece de resistance" of the wildflower excursions for the year on November 12. I paid a visit on October 18 and found it ablaze with flowers – a magic show of impressive variety. With any luck it should still be good on the day of the excursion. Below is Joy Weatherill's list a little earlier, but you can also refer to Richard Piesse's impressive list for November 17 last year, printed on p5, issue 383 of Castlemaine Naturalist December 2010, and of course, if you have it, to the excellent publication by the local Landcare group "Macedon Ranges Flora" (copies can be purchased at the Riddells Ck newsagent)

Richard has volunteered to lead this walk. **Please note that you should be at the usual meeting place by 10.45am so we can car pool for an 11 am start.**

Bring snacks, lunch and drinking water and wear suitable clothing (including hat) and sturdy footwear. The CG track is stony and a bit rough in places, but you don't need to venture very far along it to see lots of plants.

We will have lunch and afternoon tea in the field before returning to Castlemaine, leaving Riddells Creek at approximately 4.30pm.

Please let Denis Hurley know by 5.00pm on Friday 11th November if you are coming. His phone number is 5472 2753. Alternatively, let him know at the monthly meeting on Friday night (7.30 pm at the Uniting Church Hall, Lyttleton Street).
If the weather is *very* inclement, Denis and Richard will decide by 9.00am on Saturday morning and Denis will be at the Octopus at 10.45am to let anyone know if they are in doubt. But just "inclement" will not be enough to call the walk off!

Further information (including map) is available on the Landcare website at: www.riddellscreeklandcare.org.au

Flowering plants in Conglomerate Gully October 13/14, 2011

Joy Weatherill

Forest Buttercup	Ranunculus plebeius
Wax-lip Orchid	Glossodia major
Pink Fingers	Caladenia carnea
Bird Orchid	Chiloglottis valida
Donkey (wallflower) Orchid	Diuris orientis
Sun Orchid	Thelymitra sp
Early Nancy	Wurmbea dioica
Milkmaids	Burchardia umbellata
Black-anther Flax-lily	Dianella admixta
Chocolate lily	Arthropodium strictum
Wood Sorrel	Oxalis sp.
Prickly Moses	Acacia verticillata
Running Postman	Kennedia prostrata
Showy Parrot-pea	Dillwynia sericea
Grey Parrot-pea	Dillwynia cinerascens
Yam Daisy	Microseris sp.

Sun-orchid *Thelymitra sp* - NY

Austral Bear's-ears	Cymbonotus preissianus
Common Beard-heath	Leucopogon virgatus
Love Creeper	Comesperma volubile
Large-leaf Bush-pea	Pultenea daphnoides
Tall Sundew	Drosera peltata
Bitter Cryptandra	Cryptandra amara
Creamy Candles	Stackhousia monogyna
White Marianth	Rhytidosporum procumbens
Blue Pincushion	Brunonia australis
Hop Goodenia	Goodenia ovata
Common Rice-flower	Pimelia humilis
Trigger Plant	Stylidium armeria
Native Violet	Viola hederacea
Tall Bluebell	Wahlenbergia stricta
Hoary Sunray	Leucochrysum albicans
Pink Bells	Tetratheca ciliata
Spiny-headed Mat-rush	Lomandra longifolia
Creeping Bossiaea	Bossiaea prostrata
Twining Glycine	Glycine clandestina

Speedwell *Veronica gracilis* - NY

Wednesday Wildflower Walks

Rita Mills

Oct. 5 The Monk.

We'd missed this walk the week before due to the rain, and unlike that week, it was a very pleasant afternoon, with plenty of flowers, including the one *Platylobium montanum ssp. montanum* (called *formosum* last year) which hangs on until we visit it each year. All the rest are long finished.

Plants in flower: (again I am only giving the scientific name to the ones we haven't recorded on the previous Walks this year.) Chocolate Lily *Arthropodium strictum*, Milkmaids *Burchardia stricta*, Musky Caledenia *C gracilis,* Black-anther Flax-lily, Leopard Orchid, Gold-dust, Rough, Hedge, and Golden Wattles, Daphne Heath, Billy Buttons (far fewer than usually seen on the Monk), Narrow-leaf Bitter-pea, Primrose Goodenia, Downy Grevillea, Wiry Buttons *Leptorhynchos tenuifolius* (very early), Yam Daisy, Grey Everlasting, Fairy Wax-flower, Common Rice-flower, Handsome Flat-pea, White Marianth, Fireweed *Senecio sp.,* Candles, Sticky Everlasting, Showy Parrot-pea *Dillwynia sericea*, and though the Crimson Spider-orchids were finished we still found the deep red stems and seed-pods.

Oct. 12 Poverty Gully Track, just off Ross Drive. (We were about 300m further along the track on Sept 21) This was a walk that really proved that you don't have to really know your plants, just a favourite spot. One of the best walks, it was led by a birdo!

Plants in flower: Gold-dust, Rough, and Hedge Wattles, Sticky and Grey Everlastings (the Grey Everlastings have make a great show this spring), Tall Bluebells, Narrow-leaf Bitter Pea, Tall Rice-flower, Pink-bell, Primrose Goodenia, Black-anther Flax–lily (the Flax-lilies were thick in places, and after the talk by Geoff Carr at the October meeting I think perhaps we should check these ones more carefully as some are very dense clumps, some more typical of *D. admixta*), Milkmaids, Chocolate Lily, Showy Parrot-pea, Rough Bed-straw, Daphne Heath,

*Spanish Heath *Erica lucitanica*, Fairy Wax, White Marianth, Rough Spear-grass *Stipa sp.*, Many-flowered Mat-rush *Lomandra multiflora*, Wax-lip Orchid, Grass Trigger-plant *Stylidium ameria*, Candles, Purplish Beard-orchid *Calochilus robertsonii*, Silky Hakea.

Oct. 19 Demo Track, Green Gully area.

This time we had warm, windy weather. The spot that we were heading for had been burnt already and was still smoking, but further along we found plants in flower.

Plants in flower: Grey Everlasting, Downy Grevillea, Tangled Guinea-flower *Hibbertia exutiacies*, Daphne Heath, Tall Riceflower, Pink-bell, Black-anther Flax-lily, Many-flowered Mat-rush, Scented Sun-orchid *Thelymitra megcalyptra*, Milkmaids, Tall Bluebell, Sticky Everlasting, Fairy Wax-flower, Twiggy Bush-pea *Pultenea largiflorens*, and on the Blow-mine track on the way out, Chocolate lilies.

These Wednesday Walks, Wanders, What-have-yous (I think we should re-name them) are an all-too-short, but enjoyable time, and an opportunity to keep track of what is happening in our local bush each spring, so we very much appreciate those who take us to these special places, just a few minutes from the town.

Observations

At the October meeting observation session there was a discussion around the return of many birds that have been absent in the district over the drought years. Lots of waterbirds have been sighted in the many swamps which were formally dry; large flocks of Ibis, several sightings of White necked Heron, an Egret on Forest ck, and so on. Ken Dredge spoke of his attendance at the recent BOC camp at Dookie, where it was noted that many species which have been declining are now occurring in good numbers, e.g. Diamond Firetails, Hooded Robins, Plumed Whistle ducks, Diamond ducks, Crested Shrike-tits. 140 sp. were recorded on the 5 day camp, but most conspicuous by their absence were the Thornbills.

- Reed Warblers are back in Forest Creek; their calls are deafening at 6 am - George Broadway
- Denis Hurley – since last report has seen a flock of "over 200" Ibis in Happy Valley, and witnessed Yellow-tailed Black Cockatoos being attacked by both Magpies and Wattlebirds
- Nigel Harland had a first at home – a pair of Brush tailed Phascogales
- Nankeen Night Heron on Wilmers dam, and about 30 Straw necked Ibis – Rita Mills
- Late October – unearthed 2 spade-foot Toads, saw a shingleback, a Blue-banded Bee, and for the first time a Jackie Lizard in the yard – Denis Hurley

Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

Castlemaine Field Naturalists Programme
November 2011

Fri November 11 meeting: speakers ANNE and NIGEL HARLAND
Galapagos and Ecuador

Sat November 12 field trip: Riddells Creek - Conglomerate Gully*
*NB **leaves 11am** from the car park opp. Castle Motel – see page 5

Sat December 3 Annual Bird Challenge Count – contact Chris Morris

Fri December 9 meeting: Members' night – Members "show and tell".

Share a few photos, a nature experience, a poem – be as creative as you like. Slide and digital projectors available for use (Powerpoint or jpegs on either CD or USB key) Bring a plate – share supper.

VISITORS ARE WELCOME AT CLUB ACTIVITIES

General meetings - (second Friday of each month, except January) are held in the Uniting Church (UCA) Hall (enter from Lyttleton St.) at 7.30 pm.
Field Trips - (Saturday following the general meeting) leave from the car park opposite Castle Motel, Duke Street at 1.30pm sharp unless stated otherwise. BYO morning and/or afternoon tea. Outdoor excursions are likely to be cancelled in extreme weather conditions. There are NO excursions on total fire ban days.
Business meetings - fourth Thursday of each month, except December, at Denis Hurley's; 20 Merrifield St., at 7.30 pm. All members are invited to attend.

Subscriptions for 2011
Ordinary membership: Single $27, Family $35
Pensioner or student: Single $24, Family $29
Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

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